PAPER 18:

EDUCATIONAL TECHNOLOGY FOR IMPROVEMENT OF TEACHING LEARNING ENVIRONMENT IN NIGERIA.

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ABSTRACT:

The desires for both qualitative and qualitative education have increased the need for providing an efficient and effective teaching-learning environment in Nigeria. The increases in enrolment figures of students coupled with shortages of qualified teachers and instructional materials have increased the potential contributions of educational technology in the improvement of the teaching-learning environment. In modern day Nigeria, educational technology is still beclouded by a number of problems, principal among them is that of resources which includes human and material. Specifically, the paper highlights the contribution of instructional materials to the improvement of the teaching-learning environment. Also conclusion and recommendations were made among which is the establishment and procurement of the right instructional materials that would invariably ensure right attitude toward good technological training that would helped in the improvement of teaching – learning environment.

INTRODUCTION

Education in Africa, and indeed in Nigeria, appears to be caught between two competitive priorities, namely qualitative and quantitative considerations. Consequently, successive governments have continually invested a great proportion, of their annual budgets on education. In general, the post-independence era in Nigeria was characterised by massive emphasis on the expansion and improvement of educational opportunities. For example, there were phenomenal increases in the number of schools as well as student enrolments. The need to lay educational groundwork for home grown technological in Nigeria has early been recognised by the Ashby Report (1960) and other national development plans that were put in place. Efforts to achieve this goal are reflected in establishing technical and vocational schools, colleges of education and polytechnics, university of technology and the ministry of science and technology. These increases in the number of schools however, also helped to worsen the perennial problems of shortages of qualified teachers physical facilities and instructional materials in Nigerian educational system. The desire to lesson the effects of these problems on the teaching – learning processes has result in the attempts to adopt instructional innovation.

One of the latest innovations in once educational systems is the introduction of educational technology into the learning – teaching environment in Nigeria. Educational technology is an educational innovation that can be considered a necessity today in Nigeria. Rather than subscribing to the so –called contradictions between quantitative and qualitative education, it emphases the concurrence of the two requirements in the Nigeria teaching – learning environment. These two requirements have posed many prospects and problems for educational technology in Nigeria.

WHAT IS EDUCATIONAL TECHNOLOGY

The prevailing misconceptions about educational technology in Nigeria makes the reversal process an appropriate method of starting a discussion on educational technology. If a number of people are asked what is educational technology, the average answer is likely to fall into one of the following statements, which constitute what educational technology, is not per se: Audiovisual Aids, Graphic or Creative Arts, Educational Broadcasting, Teaching Aids, e.t.c. (Imogie, 1988). There is no doubt that each of the foregoing is part of the components of educational technology. Educational technology is a systematic way of designing, carrying-out and evaluating the total process of learning in tearing specific objectives, based on research in human learning and communication, and employing a combination of human and non – human resources to bring about more effective instruction. Educational technology in considered as a process of solving instructional problems rather than a means. Accordingly, educational technology in a complex, integrated process involving people, procedures, ideas, devices and organisation, for analysing problems, and devising implementing, evaluating and managing solutions to those problems involved in all aspects of human learning (AECT, 1979)

INSTRUCTIONAL MATERIALS

Instructional materials can simple be referred to as those items or resources which the teacher employ for teaching (Adegun, 2001). These include audiovisual aids, such as radio, television. Films or cinema, computer, transparencies and slides. It also includes the environment as well as the community in which the teacher and the schools and students are located.

According to Adegun (2001) instructional materials are indispensable to effective teaching. This is hinged on the modern practice of educational learning which is predicted on activity and on the sensory exposure of the child because of the great advancement from verbal instruction's to the modern methods of teaching through various information system. As the teaching was then essentially oral, it was augmented by the use of picture diagrams or maps e.t.c With the discovering of recorded sound, the sound motion pictures and audio aids began to be employed in teaching. Today the most recent in the sphere of resource materials for teaching and learning is the computer. This is yet to gain much ground as it is only selectively used. Perhaps, no instructional material has any magical quality of self-teaching or learning, rather its effectiveness and usefulness depends on how the teacher utilises it to advance has goals.

CONSTRAINTS OF INSTRUCTIONAL MATERIALS

One of the greatest problems that have constituted obstacles to instructional materials is the problem of development. The problem of development is not only one of semantics but indeed of reality. For this reason, distinction is always made between 'growth' and 'development'. Development, education and planning are indispensable ingredients for an integrated health of a nation (Bajah, 1989). It is against this backdrop that policy makers in Nigeria have variously put in place polices that tend to bring about expansion of our educational institutions which consequently have brought an increase in students enrolment. Unfortunately, increase in students' enrolment without the corresponding increase in instructional materials has inevitably led to inadequate or lack of these teaching materials in technical and vocational institutions in particular and in all schools in general. The inadequacy of instructional materials includes maps, globes, models, projectors and computers.

In recent past the non-availability of these materials has constituted constraints to effective teaching and learning. This is because, these materials are either being worn-out with use or due to neglect or as a result of being broken down and not replaced due to lack of finance and maintenance facilities. (Abubakar, 2002). Some sophisticated instructional materials are even lying idle in schools due to disuse or lack of maintenance. In the same vein students equally encounter problem in having the right materials to use for their studies. For example, with respect to some subject area such as automobile and technical drawing. In most cases these problems arise due to the fact that these instructional materials are either met readily available or too expensive to afford. Additionally, there is the financial constraint. The costs of equipment have gone up unimaginably in relation to foreign exchange. Therefore, providing our school system with foreign materials and equipment is out of issue. In the past a lot of innovations and changes have taken place in our school curricula. Invariably these have altered the nature of instructional materials need for instruction and learning. From the perspective of technological education, optimum results of the teaching and learning mechanism require the matching of instructional materials to the intended learning outcomes.

In modern times educational technology can hardly survive without the hardware and software components of instructional system. Perhaps it is only on the side of the teachers at classroom level, curriculum developers, educationists e.t.c. in developing software aspects for effective teaching which can ensure innovative developments in instructional material materials. This requires bringing about an awareness and involvement of such personnel in suitable instructional materials development. According to Gunapala (1988), it is often this gap in software development which prevent optimum utilisation of even the resources available.

CONCLUSION

It is hoped that a suitable technology programme will evolve to lay a solid foundation for true national development. The establishment and procurement of the right instructional materials in our educational institutions would invariably ensure students' right attitude towards good technological training that would help in teaching and learning environment. Nigerian universities and other institutions and organisations could not have expended so much time and money in educational technology unless there were expected benefits to the teaching-learning environment. Thus, apart from the believe that it will provide the immediate solutions the instructional problems caused by increasing student enrolment and teacher shortages, Finally, it should be pointed that technology educational is costly affair in terms of both teaching instructional materials and time, hence the need to make funding available particularly in the area of teachers salaries and provision of teaching and learning instructional materials.

RECOMMENDATIONS

Based on the discussion above, the following suggestions are provided for consideration towards enhancing appropriate technologies for instructional materials. In most advance countries of the world research and development in computer science, radio, television and indeed electronics e.t.c. has promoted a high level educational technology over the years. All the same the impact of some of these modern day equipment has been put to use for educational propose in Nigeria. But the issue is that whether they have been utilised to the fullest extent to meet one specific classroom needs. Since these equipment already exist in the form of television broadcasting and more recently computer, there is the need for us to formally develop them or acquired them in the need

right quantity and adapt them for teaching and learning in the classroom. Besides, government should commence a systematic arrangement on how these materials. Again, the government should endeavour to develop some blueprints for material requirement for educational advancement. Also, seminars and workshops could be arranged to enlighten and sensitize those involved in educational training process.

Furthermore, government should create an enabling environment for teachers, pupils and indeed the general public to become innovative in designing and developing some of these resource materials required for teaching and learning in the classroom.

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